

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for controlling at least one computing element with a universal console, comprising:

receiving ~~input~~ from a user ~~indicative of at least one~~ an user interface preference, wherein said ~~at least one user interface~~ preference ~~defines-comprises~~ at least one generalized rule characterizing one of the group consisting of a visual, an aural, and a tactile user interface mode ~~of communication~~;

~~storing the at least one user preference;~~

selecting a computing element to control with the universal console;

receiving by the universal console a canonical user interface description representative of the computing element's user interface, wherein said canonical user interface description is independent of said user interface mode, ~~wherein the~~ said canonical user interface description includes comprising at least one action-command operable to control said computing element;

instantiating a customized user interface, ~~said user interface providing at least one prompt for said user to select said at least one action-command, wherein said at least one prompt is provided~~ in accordance with said ~~stored at least one user~~ interface preference and the canonical user interface description;

~~selecting at least one action-command to be carried out by the computing element using said user interface; and~~

transmitting to the computing element data associated with said at least one action-command using a remote procedure call mechanism.

2. (Original) A method according to claim 1, wherein said selecting at least one action-command includes requesting information about the state of said at least one computing element.
3. (Original) A method according to claim 1, further comprising interacting with at least one group hierarchy to obtain data in connection with said selected at least one action-command to be carried out by the computing element.

4. (Original) A method according to claim 1, wherein said storing includes storing data indicating at least one disability of the user.
5. (Original) A method according to claim 1, further including carrying out said action-command by said computing element.
6. (Original) A method according to claim 1, further including receiving by the UC notifications from the computing element.
7. (Original) A method according to claim 6, wherein said notifications include at least one of an error message, warning message, status update message and state change.
8. (Original) A method according to claim 1, wherein said canonical UI representation is formatted according to an XML stream.
9. (Original) A method according to claim 1, further including requesting a list of available devices that may be controlled by UC.
10. (Original) A method according to claim 1, wherein communications between said UC and said computing element are made via Hypertext Transfer Protocol (HTTP).
11. (Original) A method according to claim 1, wherein said computing element is one from the group of a computing device and an application.
12. (Previously presented) A method according to claim 1, wherein said remote procedure call mechanism makes calls according to Simple Object Activation Protocol (SOAP).
13. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter for choosing one element a from a set A .

14. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter for selecting a subset A' from a set A .
15. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter for selecting one from the group of True/False, Off/On, OK/Cancel and Yes/No.
16. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter for selecting an integer n in the range n_1 through n_2 , with increment δ .
17. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter for selecting a real number x in the range x_1 through x_2 , with increment δ .
18. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter type for an arbitrary string s .
19. (Original) A method according to claim 18, wherein said arbitrary string s is to be selected from a suggestion set of strings S .
20. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter type for the modification of a given first string s , resulting in a second string s' .
21. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter type for ordering the elements of set A into A' .

22. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter type for pairing set *A* elements with set *B* elements.

23. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a group construct that contains at least one of commands and subgroups.

24. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a command construct that specifies at least one action to send to the controlled element that will carry out the action-command.

25. (Original) A method according to claim 24, wherein said canonical UI representation includes a description of the parameters associated with the at least one action.

26-41. (Canceled)

42. (Currently Amended) A computer system comprising at least one universal console and at least one computing element, operable to allow a user to control said at least one computing element, said system comprising:

at least one computing element having a canonical user interface description associated therewith, said canonical user interface description representative of the computing element's user interface and independent of any particular interface mode, wherein said canonical user interface ~~includes~~ comprises at least one action-command operable to control said computing element;

a universal console for controlling said at least one computing element and operable to ~~receive store user an interface preference input to the computer system by the user~~, wherein said ~~user interface preference~~[s]] defines comprises at least one generalized rule characterizing said interface mode, said interface mode comprising one of the group consisting of a visual, an aural and a tactile user interface mode of communication;

wherein said at least one computing element communicates its associated canonical user interface description to said universal console;

wherein said universal console instantiates a customized user interface in accordance with as a function of said canonical user interface description and said ~~stored user~~ interface preference[[s]]; and

wherein, thereafter, said universal console is operable to control said computing element via said customized user interface ~~description~~ by user-selection of said at least one action-command.

43. (Previously presented) A computer system according to claim 42, wherein said user selection includes requesting information about the state of said at least one computing element.

44. (Previously presented) A computer system according to claim 42, wherein said UC is operable to enable a user to interact with at least one group hierarchy to obtain data in connection with said selected at least one action-command to be carried out by the computing element.

45. (Original) A computer system according to claim 42, wherein said storage of user preferences includes the storage of data indicating at least one disability of the user.

46. (Original) A computer system according to claim 42, wherein said at least one computing element carries out said at least one action-command.

47. (Original) A computer system according to claim 42, wherein said UC receives notifications from the at least one computing element.

48. (Original) A computer system according to claim 47, wherein said notifications include at least one of an error message, warning message, status update message and state change.

49. (Original) A computer system according to claim 42, wherein said canonical UI description is formatted according to an XML stream.

50. (Previously presented) A computer system according to claim 42, wherein said user-selection includes requesting a list of available devices that may be controlled by UC.
51. (Original) A computer system according to claim 42, wherein communications between said UC and said computing element are made via Hypertext Transfer Protocol (HTTP).
52. (Original) A computer system according to claim 42, wherein said computing element is one from the group of a computing device and an application.
53. (Previously presented) A computer system according to claim 42, wherein said remote procedure call mechanism makes calls according to Simple Object Activation Protocol (SOAP).
54. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter for choosing one element a from a set A .
55. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter for selecting a subset A' from a set A .
56. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter for selecting one from the group of True/False, Off/On, OK/Cancel and Yes/No.
57. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter for selecting an integer n in the range n_1 through n_2 , with increment δ .

58. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter for selecting a real number x in the range x_1 through x_2 , with increment δ .
59. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter type for an arbitrary string s .
60. (Original) A computer system according to claim 59, wherein said arbitrary string s is to be selected from a suggestion set of strings S .
61. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter type for the modification of a given first string s , resulting in a second string s' .
62. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter type for ordering the elements of set A into A' .
63. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter type for pairing set A elements with set B elements.
64. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a group construct that contains at least one of commands and subgroups.
65. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a command construct that specifies at least one action to send to the controlled element that will carry out the action-command.

66. (Original) A computer system according to claim 65, wherein said canonical UI description includes a description of the parameters associated with the at least one action.

67. (Currently Amended) A computer readable storage medium comprising computer executable instructions for controlling at least one computing element with a universal console, comprising:

instructions means for receiving input from a user ~~indicative of at least one~~ an user interface preference, wherein said ~~at least one user interface preference~~ defines-comprises at least one generalized rule characterizing one of the group consisting of a visual, an aural, and a tactile user interface mode of communication;

instructions means for storing the at least one user preference;

instructions means for selecting a computing element to control with the universal console;

instructions means for receiving by the universal console a canonical user interface description representative of the computing element's user interface, wherein said canonical user interface description is independent of said interface mode, ~~wherein the said~~ canonical user interface description ~~includes~~ comprising at least one action-command operable to control said computing element;

instructions means for instantiating a customized user interface, ~~said user interface providing at least one prompt for said user to select said at least one action-command~~, wherein ~~said at least one prompt is provided~~ in accordance with said ~~stored at least one user interface preference~~ and the canonical user interface description;

instructions means for selecting at least one action-command to be carried out by the computing element using said user interface; and

instructions means for transmitting to the computing element data associated with said at least one action-command.